**Project Development Sprint -4**

**TEAM ID : PNT2022TMID27750**

**IoT based safety gadget for child safety monitoring and notification**

**Aim:**

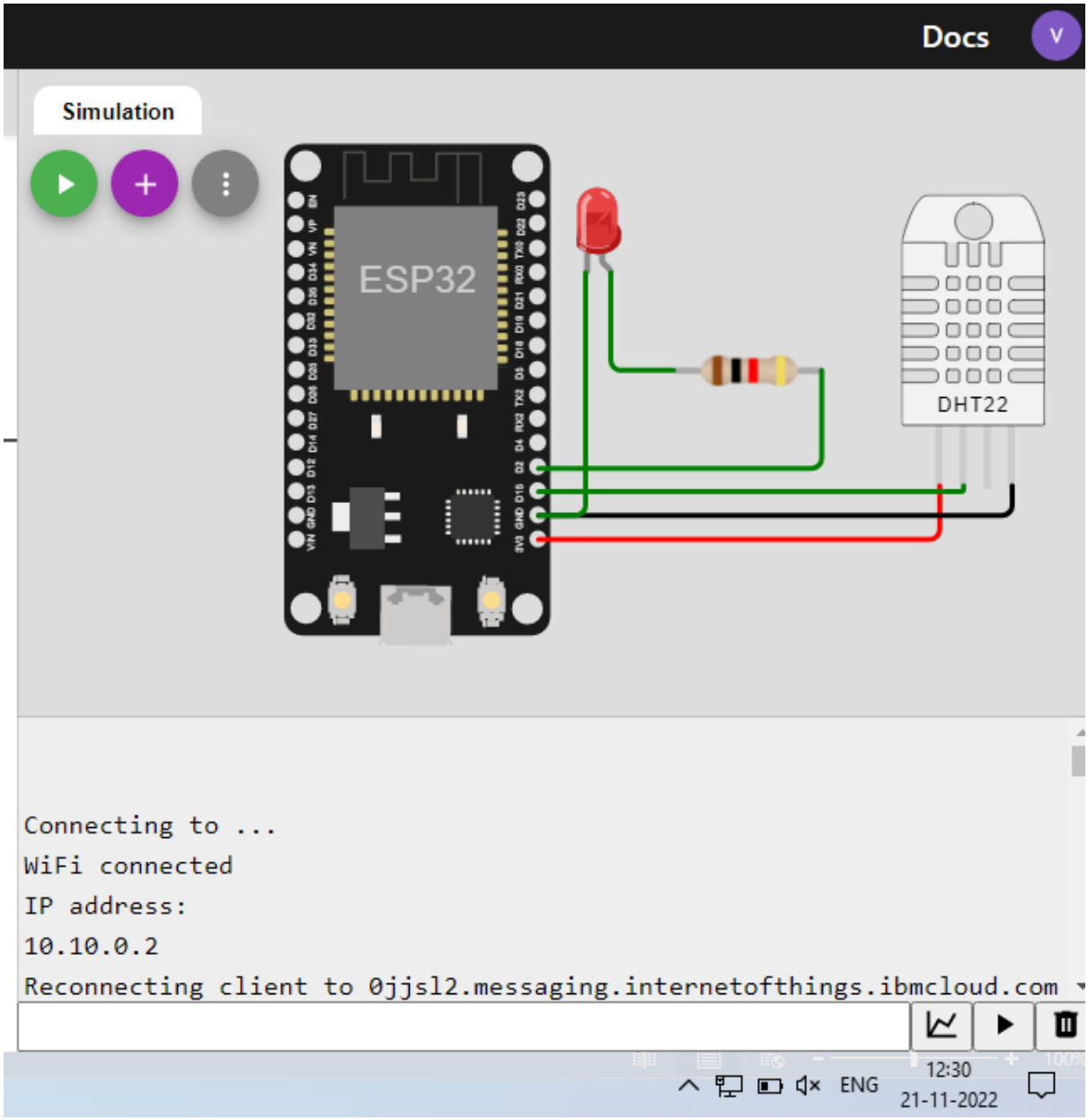
To write a code and connections in Wokwi for temperature sensor and to display in device recent events in IBM IoT Watson

**Code:**

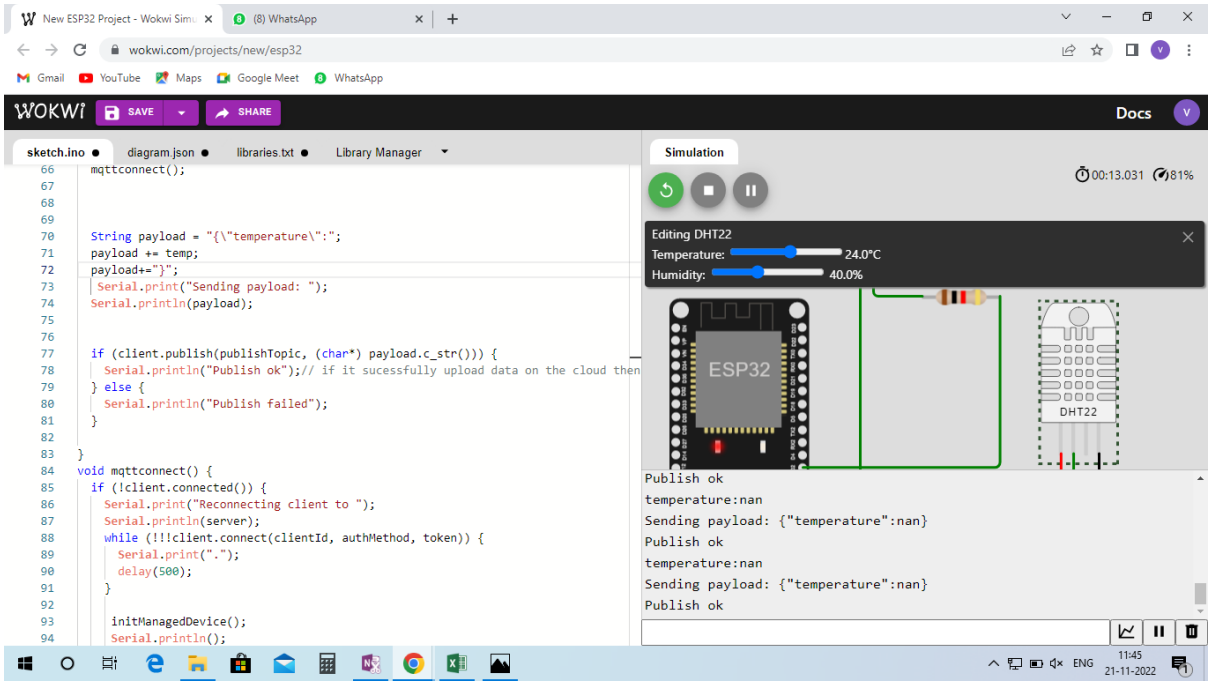
```
#include <WiFi.h>//library for wifi
#include <PubSubClient.h>//library for MQtt
#include "DHT.h"// Library for dht11
#define DHTPIN 4     // what pin we're connected to
#define DHTTYPE DHT11   // define type of sensor DHT 11
#define LED 5
DHT dht (DHTPIN, DHTTYPE);// creating the instance by passing pin and typr of dht connected

void callback(char* subscribetopic, byte* payload, unsigned int payloadLength);

//-------credentials of IBM Accounts------

#define ORG "0jjsl2"//IBM ORGANITION ID
#define DEVICE_TYPE "b11m3edevicetype"//Device type mentioned in ibm watson IOT Platform
#define DEVICE_ID "b11m3edeviceid"//Device ID mentioned in ibm watson IOT Platform
#define TOKEN "_zlY3G?Os5O?M5puUo"     //Token
String data3;
float h, t;


//-------- Customise the above values --------
char server[] = ORG ".messaging.internetofthings.ibmcloud.com";// Server Name
char publishTopic[] = "iot-2/evt/Data/fmt/json";// topic name and type of event perform and format in which data to be send
char subscribetopic[] = "iot-2/cmd/test/fmt/String";// cmd  REPRESENT command type AND COMMAND IS TEST OF FORMAT STRING
char authMethod[] = "use-token-auth";// authentication method
char token[] = TOKEN;
```

```
char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;//client id


//----------------------------------------
WiFiClient wifiClient; // creating the instance for wificlient
PubSubClient client(server, 1883, callback ,wifiClient); //calling the
predefined client id by passing parameter like server id,portand
wificredential
void setup()// configureing the ESP32
{
  Serial.begin(115200);
  dht.begin();
  pinMode(LED,OUTPUT);
  delay(10);
  Serial.println();
  wificonnect();
  mqttconnect();
}

void loop()// Recursive Function
{


  t = dht.readTemperature();
  Serial.print("temperature:");
  Serial.println(t);



  PublishData(t);
  delay(1000);
  if (!client.loop()) {
    mqttconnect();
  }
}
```

**Connections:**




**OUTPUT (WOKWI):**




## Output( IBM cloud):